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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,761	02/03/2004	Edward James Cargill	58029-13C	8914

7590 09/16/2005
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EXAMINER

PICKARD, ALISON K

ART UNIT	PAPER NUMBER
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3673

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/769,761

Applicant(s)

CARGILL, EDWARD JAMES

Examiner

Alison K. Pickard

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 9, and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Weeks (4,842,287).

Weeks discloses a seal assembly (which is capable of use with a rotatable component) comprising a seal element 30 retained by a seal housing 31 (or 32). The seal element is a compressible material and has an engagement surface. The engagement surface contacts an engagement surface of the housing having plural parallel and concentric circumferential grooves 37 (or 29), which provide an isolated gap and receive the seal material to restrain movement between the seal and housing. Item 32 (or 31) is considered a preloading mechanism that urges the engagement surfaces together on assembly. The engagement surfaces are perpendicular to an axis of the piston and thus would be perpendicular when used in an environment with a rotating component.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endicott in view of Lemelson (3,403,717).

Endicott discloses a seal assembly comprising a seal element 38 retained by a seal housing 32. The element and housing each have an engagement surface (at 64), which is oriented in a plane normal to a longitudinal axis of shaft 34 (which can rotate). The seal element is comprised of a compressible material. A spring 42 (or 78) urges the two surfaces together. Endicott does not disclose a depression for receiving material to restrain movement. Lemelson teaches a seal assembly comprising two compressively mating members (and can be used in a rotary environment involving shafts). Lemelson teaches the use of plural, parallel grooves 14 and 16 in one element for receiving material of the other element to create a seal and mechanical bond (2:31-65). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the housing of Endicott with the grooves of Lemelson to provide a seal and mechanical bond between the seal element and housing as taught by Lemelson.

Response to Arguments

5. The arguments against Weeks are unpersuasive. The claims ONLY claim an assembly with a seal element and a seal housing. There is no structure or limitation relating either to the rotatable component (i.e. seal is never claimed in contact with the shaft, etc.), only to an axis. The engagement surfaces of Weeks are perpendicular to the axis of the shaft/piston and would be oriented correctly when used in an environment with a rotating shaft.

Endicott in view of Lemelson also discloses the claimed invention. Lemelson teaches plural grooves that provide an isolated gap that receives compressible material from one

Art Unit: 3673

component to seal and mechanically bond the elements together, thereby preventing movement between the two. Lemelson teaches such a connection is used in a variety of environments including housings, shafts, and seals. The grooves are formed on mating surfaces that are normal to a direction of compression. Endicott's seal and housing are compressed in a direction parallel with the shaft axis.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 571-272-7062.

The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on 571-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AP

Alison K. Pickard
Primary Examiner
Art Unit 3673

